

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend Claims 1, 5, 8-10, 12, 14-18, 29, 42, 45, 48-49, 51, 53-55, 64 and 70 as indicated in the following Listing of Claims. Please cancel Claims 11, 13, 30, 50, 52 and 65 without prejudice or disclaimer.

Listing of Claims

1. (Currently amended) A drilling fluid composition, comprising:  
a non-aqueous base fluid;  
~~a blend of one or more copolymers; and~~  
~~Polyethylene; and~~  
wherein the copolymers are prepared by reacting (a) at least one alpha-olefin, and (b) at least one anhydride of an alpha,beta-ethylenically unsaturated carboxylic acid.
2. (Previously Presented) The drilling fluid composition of claim 1, wherein the non-aqueous base fluid is selected from the group consisting of an oil, propylene glycol, modified ester, modified ether, and any combination thereof.
3. (Previously Presented) The drilling fluid composition of claim 1, wherein the non-aqueous base fluid comprises an emulsion.
4. (Previously Presented) The drilling fluid composition of claim 3, wherein the emulsion comprises an invert emulsion.
5. (Currently amended) The drilling fluid composition of claim 4, wherein the invert emulsion comprises:  
an oil;  
a water; and  
particulate solids.

6. (Previously Presented) The drilling fluid composition of claim 5, wherein the oil is selected from the group consisting of diesel oil, mineral oil, olefins, modified olefins, and any combination thereof.

7. (Previously Presented) The drilling fluid composition of claim 5, wherein the water is a brine.

8. (Currently amended) The drilling fluid composition of claim 1, wherein the ~~blend of one or more copolymers comprises copolymers having an average weight average molecular weight of greater than about 20,000.~~

9. (Currently amended) The drilling fluid composition of claim 1, wherein the ~~blend of one or more copolymers comprises copolymers having an average weight average molecular weight of greater than about 21,000.~~

10. (Currently amended) The drilling fluid composition of claim 1, wherein the ~~blend of one or more copolymers comprises copolymers having an average weight average molecular weight of greater than about 25,000.~~

11. (Canceled)

12. (Currently amended) The drilling fluid composition of claim 11, wherein the at least one alpha-olefin comprises between two and twenty-five carbon atoms.

13. (Canceled)

14. (Currently amended) The drilling fluid composition of claim 14, wherein the anhydride comprises maleic anhydride.

15. (Currently amended) The drilling fluid composition of claim 14, wherein the alpha,beta-ethylenically unsaturated carboxylic acid is selected from the group consisting of acrylic acid,

crotonic acid, itaconic acid, methacrylic acid, ethacrylic acid, maleic acid, fumaric acid, and any combination thereof.

16. (Currently amended) The drilling fluid composition of claim 1, wherein the composition comprises between about 0.05 weight percent and 1.0 weight percent of the ~~blend of one or more~~ copolymers.

17. (Currently amended) The drilling fluid composition of claim 1, wherein the composition comprises between about 0.075 weight percent and 0.75 weight percent of the ~~blend of one or more~~ copolymers.

18. (Currently amended) The drilling fluid composition of claim 1, wherein the composition comprises between about 0.1 weight percent and 0.5 weight percent of the ~~blend of one or more~~ copolymers.

19. (Previously Presented) The drilling fluid composition of claim 1, wherein the polyethylene has a melt index of less than about 10.

20. (Previously Presented) The drilling fluid composition of claim 1, wherein the polyethylene has a melt index of less than about 5.

21. (Previously Presented) The drilling fluid composition of claim 1, wherein the polyethylene has an average particle size of less than about 0.06 inches.

22. (Previously Presented) The drilling fluid composition of claim 1, wherein the polyethylene has an average particle size of less than about 0.03 inches.

23. (Previously Presented) The drilling fluid composition of claim 1, further comprising one or more additives.

24. (Previously Presented) The drilling fluid composition of claim 23, wherein the one or more additives comprise a clayed-based material.

25. (Previously Presented) The drilling fluid composition of claim 24, wherein the clay-based material comprises a rheologically active clay.

26. (Previously Presented) The drilling fluid composition of claim 25, wherein the rheologically active clay is selected from the group consisting of organoclays, smectite clays, and a combination thereof.

27. (Previously Presented) The drilling fluid composition of claim 25, wherein the rheologically active clay comprises hectorite.

28. (Previously Presented) The drilling fluid composition of claim 25, wherein the rheologically active clay comprises bentonite.

29. (Currently amended) The drilling fluid composition of claim 23, wherein the one or more additives comprise a black material selected from the group consisting of lignite, salt of lignite, organophilic lignite, asphalt, salt of sulfonated asphalt, gilsonite, graphite, ground tires, and any combination thereof.

30. (Canceled)

31. (Previously Presented) The drilling fluid composition of claim 23, wherein the one or more additives comprise a weighting agent.

32. (Previously Presented) The drilling fluid composition of claim 31, wherein the weighting agent is selected from the group consisting of barite, galena, hematite, dolomite, calcite, and any combination thereof.

33. (Previously Presented) The drilling fluid composition of claim 1, wherein the drilling fluid composition comprises between about 0 weight percent to about 25 weight percent water.

34. (Previously Presented) The drilling fluid composition of claim 1, wherein the drilling fluid composition comprises between about 1 weight percent to about 20 weight percent water.

35. (Previously Presented) The drilling fluid composition of claim 1, wherein the drilling fluid composition comprises between about 2 weight percent to about 15 weight percent water.

36. (Previously Presented) The drilling fluid composition of claim 1, wherein the composition comprises high pressure high temperature fluid loss characteristics of less than about 7.2 ml/30 minutes.

37. (Previously Presented) The drilling fluid composition of claim 1, wherein the composition comprises high pressure high temperature fluid loss characteristics of less than about 6.5 ml/30 minutes.

38. (Previously Presented) The drilling fluid composition of claim 1, wherein the composition comprises high pressure high temperature fluid loss characteristics of less than about 6.0 ml/30 minutes.

39. (Previously Presented) The drilling fluid composition of claim 1, wherein the composition has settling of between about 0% and 25%.

40. (Previously Presented) The drilling fluid composition of claim 1, wherein the composition has settling of between about 0% and 20%.

41. (Previously Presented) The drilling fluid composition of claim 1, wherein the composition has settling of between about 0% and 15%.

42. (Currently amended) A method of preparing a drilling fluid composition that comprises combining:

a non-aqueous base fluid;

~~a blend of one or more copolymers; and~~

~~polyethylene; and~~

wherein the copolymers are prepared by reacting (a) at least one alpha-olefin, and (b) at least one anhydride of an alpha,beta-ethylenically unsaturated carboxylic acid.

43. (Previously Presented) The method of claim 42, wherein the non-aqueous base fluid comprises an emulsion.

44. (Previously Presented) The method of claim 43, wherein the emulsion comprises an invert emulsion

45. (Currently amended) The method of claim 44, wherein the invert emulsion comprises:

an oil;

a water; and

particulate solids.

46. (Previously Presented) The method of claim 45, wherein the oil is selected from the group consisting of diesel oil, mineral oil, olefins, modified olefins, and any combination thereof.

47. (Previously Presented) The method of claim 45, wherein the water is a brine.

48. (Currently amended) The method of claim 42, wherein the ~~blend of one or more~~ copolymers comprises copolymers having an average weight average molecular weight of greater than about 20,000.

49. (Currently amended) The method of claim 42, wherein the ~~blend of one or more~~ copolymers comprises copolymers having an average weight average molecular weight of greater than about 25,000.

50. (Canceled)

51. (Currently amended) The method of claim 4250, wherein the at least one alpha-olefin comprises between two and twenty-five carbon atoms.

52. (Canceled)

53. (Currently amended) The method of claim 4250, wherein the anhydride comprises maleic anhydride.

54. (Currently amended) The method of claim 4250, wherein the alpha,beta-ethylenically unsaturated carboxylic acid is selected from the group consisting of acrylic acid, crotonic acid, itaconic acid, methacrylic acid, ethacrylic acid, maleic acid, fumaric acid, and any combination thereof.

55. (Currently amended) The method of claim 42, wherein the composition comprises between about 0.05 weight percent and 1.0 weight percent of the ~~blend of~~ one or more copolymers.

56. (Previously Presented) The method of claim 42, wherein the polyethylene has a melt index of less than about 10.

57. (Previously Presented) The method of claim 42, wherein the polyethylene has an average particle size of less than about 0.06 inches.

58. (Previously Presented) The method of claim 42, further comprising the step of adding one or more additives into the drilling fluid composition.

59. (Previously Presented) The method of claim 58, wherein the one or more additives comprise a clayed-based material.

60. (Previously Presented) The method of claim 59, wherein the clay-based material comprises a rheologically active clay.

61. (Previously Presented) The method of claim 60, wherein the rheologically active clay is selected from the group consisting of organoclays, smectite clays, and a combination thereof.

62. (Previously Presented) The method of claim 60, wherein the rheologically active clay comprises hectorite.

63. (Previously Presented) The method of claim 60, wherein the rheologically active clay comprises bentonite.

64. (Currently amended) The method of claim 58, wherein the one or more additives comprise a black material selected from the group consisting of lignite, salt of lignite, organophilic lignite, asphalt, salt of sulfonated asphalt, gilsonite, graphite, ground tires, and any combination thereof.

65. (Canceled)

66. (Previously Presented) The method of claim 58, wherein the one or more additives comprise a weighting agent.

67. (Previously Presented) The method of claim 66, wherein the weighting agent is selected from the group consisting of barite, galena, hematite, dolomite, calcite, and any combination thereof.

68. (Previously Presented) The method of claim 42, wherein the drilling fluid composition comprises between about 0 weight percent to about 25 weight percent water.

69. (Previously Presented) The method of claim 42, wherein the composition comprises high pressure high temperature fluid loss characteristics of less than about 7.2 ml/30 minutes.

70. (Currently amended) A process of drilling a well, comprising circulating in the well a drilling fluid composition comprising a non-aqueous base fluid, ~~a blend of~~ one or more copolymers, and polyethylene.